

Assessment for Learning: Assessment in Interaction

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Abstract

Wherever there is challenge in our classrooms there exists the opportunity for better formative assessment. It is beyond time that policy reflected the need for cognitive and affective challenges to be constructive, enjoyable and collaborative. In so doing practitioners are able to co-construct a learning environment which lends positive support to the self-esteem among our young learners in elementary and high schools. This article discusses a remedy to a deepening crisis in our classrooms. That remedy has become known as Assessment for Learning (AfL). AfL is a crucial aspect of classroom practice, the sub-routines of which focus on: the quality of learning, the provision of advice and feedback for improvement and a strong emphasis on cooperative learning and effective learning interactions in the classroom.

‘The characteristics of dialogue are equality, sharing, spontaneity, collaboration and reciprocity. What I found interesting is that young people do not think such experiences are appropriate for the classroom where a particular view of behaviour is perceived.’ (Askew 2000, p. 47)

Introduction to Assessment for Learning

This article engages with two closely related themes: a) the theoretical arguments which justify the implementation of Assessment for Learning (AfL) on a wide scale and b) the significant advantages of AfL in practice. Both aspects of this article are drawn from a wide spectrum of literature and from recent field research undertaken by the Assessment Action Group (AAG) in the U.K

Educational research regarding communication in the classroom has come a long way since its importance was widely acknowledged at the 1972 International Communication Association (ICA) convention which focused on communication and learning. Many years later the influential Black and Wiliam (1998a, b) were commissioned by The Assessment Reform Group (ARG) at the University of Cambridge

(England) to undertake what has become a very significant review of formative assessment. Black & Wiliam (1998b) define formative assessment as 'all those activities undertaken by teachers and/or *by their students*, which provide information to be used as feedback to modify the teaching and learning activities [and] when the evidence is actually used to adapt the teaching to meet student needs,' (p.2).

Although the centre of their research is formative assessment the fulcrum upon which their research hinges is classroom communication - 'in terms of systems engineering, present policies in the U.S. and in many other countries seem to treat the classroom as a black box' (Black and Wiliam 1998b, p.1). The 'black box' functions primarily as a receptive system where, 'certain inputs from the outside - pupils, teachers, other resources, management rules and requirements, parental anxieties, standards, tests with high stakes, and so on - are fed into the box,' (Black and Wiliam 1998b, p.1). As proponents of the constructivist classroom they are persuasive in voicing their concerns over a system primarily designed to receive and decode external signals. This, they argue, reduces the opportunity for, and effectiveness of positive interactions inside the classroom. Indeed, policies which address national, state and local standards; target setting; more vigorous and frequent programs for the external testing of students' performance; and more frequent and thorough inspection proliferate the weaknesses of current assessment systems throughout our classrooms in the U.S and other countries.

The classroom is an extremely complex system with extremely flexible and porous boundaries in which some 30 or more young learners, most usually of both genders and from sometimes challenging backgrounds congregate to learn a daunting quantity of subject matter. In this reality, standards can be raised only if policy makers realize that teachers require direct help with this very challenging task. Black and Wiliam's highly significant study into formative assessment made it clear that the current situation must be recognized as a very serious problem in elementary and high schools. They have shown us that the foundation for improvements in classroom practice reside in a policy which recognizes the communicative triptych of a) involvement, b) discussion and c) feedback. Subsequently, the Assessment Reform Group (ARG) proposed a range of systemic and conceptual implications for practice and policy based on Black and Wiliam's review in a document appropriately named *Assessment for Learning: Beyond the Black Box* (1999). The ARG reinforced the proposition that better formative assessment, which they termed Assessment for Learning (AfL), demands the extensive and meaningful sharing and discussion of assessment criteria with the students. The ARG strongly assert that the consequence of this kind of interactive process is a large positive increase in the level of student engagement with the learning process (ARG 1999). Of equal importance in this design is constructive feedback from self, peers, teaching staff, and parents regarding the quality of work produced. Feedback about the quality of work is emphasized in the AfL system, and the traditionally scrutinized aspects of student output - quantity and presentation - are of relatively lesser import (ARG 1999). However, despite the indisputable credibility of AfL one review of assessment practices in U.S. schools remarked, 'the assessment practices outlined above are not common, even though these kinds of approaches are now widely promoted in the professional literature' (Neill 1997, pp.35-6). It is perhaps due to this general lack of implementation that

Assessment for Learning (AfL) is seen by many as a new vision or new art of classroom practice which should be carved with a care that is commensurate with its far reaching consequences to our young learners.

Classroom Interaction: The Foundation of Assessment for Learning

AfL is founded upon four fundamentally concrete aspects of assessment practice, all of which focus on communicative interaction: students must a) be able to understand clearly what they are trying to learn, and what is expected of them; b) be given feedback about the quality of their work and what they can do to make it better; c) be given advice about how to go about making improvements; d) be fully involved in deciding what needs to be done next, and who can give them help if they need it. It breathes a new vitality into the seemingly stagnant concept of 'student centred learning' by re-positioning the students (the immutable central stakeholders in the process of learning) at the very centre of assessment and learning interactions. As Askew's (2000) observation seen at the start of this article suggests, the quality of communication in schools is a matter for grave consideration. This sentiment is shared by many, including Brookes and Brookes (1993) who, when making the case for constructivist classrooms, remark 'dialogue is not a tile in the mosaic of school experienced by most students' (p.108).

Barriers to Implementation: Educational Policy

If we wish to maximize student achievement policy-makers must pay far greater attention to the modernisation of formative assessment through the dedicated use of interactive communicative techniques. The current policies which govern assessment place a counter-productive distance between the teacher and the student and make absolutely no direct attempt at redressing this crisis in our classrooms. Constructive challenge should exist everywhere in our classrooms; and where challenge exists so should a policy which promotes the opportunity for assessment, feedback and improvement. It is increasingly alarming that we persist in the policies of an era now long passed. Consequently, assessment has yet to be seen as a direct and powerful driver of school improvement. Observers of the post-modern era such as Ulrich Beck (Professor of Sociology at the University of Munich) remark that conventional social institutions (such as our schools), now create more problems than they solve. The crisis is largely attributable to policies which advocate the energetic use of methods which do not and which have never adequately met social needs (Beck 1992). Admittedly, it is difficult to forge a new system within societies which are typified by cultural fragmentation, states of flux and rapid and turbulent change. Yet, these *are* the challenges we face in our societies and so also in our schools. If we cannot begin to resolve them, then those we teach will be ill-equipped to deal with the consequences of these very real social changes later in their lives. The solution to an increasing inability to negotiate social meaning begins with 'equality, sharing, spontaneity, collaboration and reciprocity' (Askew 2000) in our classrooms. Educational policy regarding assessment will not change unless driven by the meaningful revision of the discourse regarding the interactions in the classroom. The power of the grammatical preposition is without equal in pedagogical discourse. When we talk of doing things *with* the student rather than *to*

the student; when feminists write about research which exists *for* young women rather than *about* young women, we are using pedagogical discourse to its fullest. These are small utterances which represent a highly significant change in the perception of classroom interaction. In the case of assessment we must supplant the word *of* in that traditionally used phrase *assessment of learning* with the word *for* - a simple amendment which represents a fundamental and essential shift in policy and resource allocation.

A deep and intensifying crisis in assessment in education is impairing huge numbers of students for reasons that many practitioners do understand. Unfortunately, this understanding is not widely exhibited by elected and non-elected policy makers. Consequently, the enduring preoccupation with performance related goals (i.e. grades) continues to dominate the agenda and intimidate the student. To focus our learning systems on ever more effective, valid and reliable methods of gathering assessment data is of course important yet to focus solely upon it is to reinforce the undesirable dominance of our current assessment systems. We are obsessed with the mistaken belief that the course to school improvement is better navigated by using more frequent, and more intense standardized testing. Consequently large numbers of students are left psychologically flattened or scattered in disarray in the wake of these ever more frequently arising juggernauts of traditional testing. A very serious consequence of the ever more robust application of traditional assessment systems is the creation of large numbers of disaffected students. This negative impact of current policy has been well documented. Both Cambridge University's Assessment Reform Group (ARG) (1999) and the University of London's EPPI-Centre (2002) recognize that students dislike traditional high-stakes tests, show high levels of test anxiety and much prefer other forms of assessment. Ames and Ames (1990) report on two high school Mathematics teachers, who took very different approaches to testing. One teacher graded every homework assignment and counted homework as 30% of a student's final grade. The second teacher told students to traffic light the questions according to their ability to do them and spend a fixed amount of time on their homework (thirty minutes a night). They were asked to bring the questions to class the next day for assistance on those questions they flagged as orange (unsure) or red (unable to attempt). This teacher avoided using numerical grades preferring instead to use short descriptors regarding the quality of the homework. In addition the students were given the opportunity to redo their assignments, and homework was counted as only 10% of the course grade. Consequently, the teacher was more successful in motivating students to turn in their homework. In the first class, some students gave up rather than risk low evaluations of their abilities. In the second class, students were not risking their self-worth each time they did their homework but rather were attempting to learn in a non-threatening and supportive environment. Mistakes were viewed as acceptable and something to learn from. It is a fact that disaffected students don't achieve their full potential, and those students who exhibit self-defeating learning behaviours are at increased risk of a downward-spiralling pattern of motivational problems (Covington, 1984b). AfL interventions provide relatively new solutions to the seemingly timeless issue of disaffection. Therefore, it is essential that much of the energy and many of the resources devoted to traditional assessment procedures should be diverted to AfL. So many resources are deployed to the prevailing policy - assessment *of learning* - that there are no resources left to train teachers on how to create and conduct

more effective AfL initiatives. For the same reasons, district and school unit administrators have not been encouraged to build assessment systems that balance standardized tests and classroom assessments in the correct proportions. As a direct result of these endemic and enduring problems of policy our assessment systems, from the smallest learning unit up remain in crisis. Outdated assessment policy remains infused with a robust energy, but the political machinery which provides the inputs to the 'black box' is proving dramatically resource inefficient (Black and Wiliam 1998a, 1998b, ARG 1999). In addition it has been imbued with increasing importance over the past few decades. Grades express the accepted and most valued definitions of academic success. The nature of government inspections and competitive league tables compels continued emphasis on test-pass rates and grades. The grasp of the traditional system upon our students is tightened by those policy makers who attach the promise of extrinsic rewards for schools that produce high scores and sanctions for schools that do not perform adequately. Why are we not, as practitioners and policy makers, profoundly shocked and embarrassed that extrinsic motivators and performance goal orientations pervade our education systems at every level? A significant part of the answer to this question resides in the psyche of those who determine educational policy. Those that have the widest range of control to implement change believe success is achieved on a personal level when one is confronted with a tougher challenge. It is unfortunate that such a view held on learning lends itself to the logic that the way to improve schools is to confront them with increasingly difficult and more regular challenges and judgments. A young person's confidence should be carefully nurtured and most certainly not brushed aside in a flurry of testing which causes disaffection and social immaturity. The use of extrinsic rewards (and punishments) by policy makers runs to the very root of the problem in our classrooms and reinforces it daily. Some may expect teachers to at least mitigate or even simply ignore these externalities and raise standards anyway by virtue of their own efforts. Black and Wiliam (1998b) succinctly reject this argument when they state, 'it seems strange, even unfair, to leave the most difficult piece of the standards-raising puzzle entirely to teachers. If there are ways in which policy makers and others can give direct help and support to the everyday classroom task of achieving better learning, then surely these ways ought to be pursued vigorously' (p. 3). In the AfL classroom the students are the engine while the teacher acts as the gears. In this role the teacher attempts to reconcile the cognitive demands of the lesson and the cognitive levels of the learners so that they move forward without being discouraged by work that is simply too challenging.

Assessment for Learning: A Constructivist Intervention

In stark contrast to the traditional and of central importance here is the explicit power of AfL to motivate and engage the student. It is beyond time for policy makers to promote the emotionally supportive classroom in order to create a safe and productive environment in which the students can nurture their self-confidence. Confidence to learn differs among individual students due to an array of complex social issues (e.g. gender, race, domestic circumstances, social status etc). The development of a healthy self-concept and the confidence to learn is also dependent upon individual and collaborative processes of cognitive internalization by each student. In the constructivist classroom

internalization is largely dependent on social construction. From Vygotsky comes the insight that only a small proportion of a child's cognitive development is self-constructed. By far the larger proportion is done by internalizing a successful performance seen in another person in their social environment and/or by working collaboratively with their peers in the construction of more powerful strategies. In this construction view of learning, as opposed to the increasingly problematic reception view, the teacher provides meaningful and appropriate guidance and extension to the learners' experience. The teachers should take care not to support the student in activities in which s/he is already capable and focus on supporting the learners attempts to make sense of their experiences and enable them to cross the 'zone of proximal development' – a spectrum of achievement only available with support (Vygotsky 1978).

Significantly, traditional testing methods are limited measures of student learning and of limited value for guiding student learning. These methods are often inconsistent with the increasing emphasis being placed on the ability of students to think analytically, to understand and communicate at the detailed and overview levels, and to acquire life-long skills that permit continuous adaptation to their environments, including the workplace. The aforementioned cognitive abilities are our early, yet insufficient responses to the increasingly complex post-modern environments which we expect young learners to negotiate on a daily basis. Assessment, as the introduction to this article states, must be a mechanism for providing instructors with data for improving their teaching methods and for guiding and motivating students to be actively involved in their own learning; assessments should help students 'become more effective, self-assessing, self-directed learners' (Angelo & Cross 1993, p.4). Any system of learning is an impossibility without a 3-cornered model: 1) curriculum 2) teaching and learning (instruction) 3) assessment. AfL takes this fundamental framework and seeks to go beyond it by putting the student at the centre of this pyramid and connecting the student with each corner. By doing this we can more actively determine what our students learn, and how well they learn it. The first thing we might usually decide is what we want our students to take away from a course. However in AfL we ask not about individual courses but about what the student should take away from the entire experience. The answer to this prime question is: students should be able to understand and communicate those aspects of curriculum, instruction and assessment that can improve their learning both in detail and in overview. To achieve this we, as practitioners and policy makers should choose our classroom assessment techniques appropriately (Anderson & Sosniak 1994; National Research Council 1996; Tobias & Raphael 1997; Wiggins 1998) and design tests that encourage the kind of learning we want students to achieve (McKeachie, 1986). The choice must be made between assessment technique which drives student learning and have the potential to meaningfully engage the student with the process of learning or those that daunt the student with the ever more intense and frequent testing of performance outcomes. Many students will learn whatever is necessary to get the grades they desire. If tests are based on memorizing details, students will focus on memorizing facts. Alternatively if assessments stress the synthesis and evaluation of information, students will be motivated to practice those skills when they study. Using the often deployed multiple-choice test seen in Mathematics testing as an example - If we wish the students to be able to recite facts and to solve simple algorithmic problems, then that

assessment technique is well aligned with the stated goals. However, if our goals include different student outcomes than these (e.g. an understanding of the scientific process, a lifelong interest in the subject, the ability to intellectually analyze the media noise regarding science), then this assessment technique will not provide useful feedback about the attainment of these goals.

The concept of student involvement in the evaluation of their own learning process requires a radical departure from the systemically reproduced prejudices concerning the current role of the student – that of subject rather than participant. Active involvement in the process of learning will extend the reach of a student's thinking process to encompass the meta-cognition of their own individual style of learning both individually and collaboratively.

The Affective and Cognitive Components of Assessment for Learning

Meta-cognition and the *bridging* of this cognition to a wider context is an integral aspect of AfL which parallels a related research project called 'cognitive acceleration' (CA). Cognitive acceleration is explained by the King's College (London) Department for Education and Professional Studies as:

'a teaching approach which challenges students' current level of thinking, which encourages the social construction of knowledge (students making knowledge cooperatively), and which encourages meta-cognition, students' reflection on their own thinking and problem-solving processes.'

CA and AfL have much in common. An important learning skill a teacher should seek to develop is that of reflective ability. Children need to be encouraged to look into themselves, to question themselves, to develop an ability to be fair to themselves, to judge their performance adequately. Reflective learning, is explained by Moon (2004):

'Reflection/ reflective learning ...in the academic context, is also likely to involve a conscious and stated purpose for the reflection, with an outcome specified in terms of learning, action or clarification. It may be preceded by a description of the purpose and/or the subject matter of the reflection,' (p. 84)

The CA intervention is very significant to this discussion of AfL because both interventions utilize meta-cognition, reflection and 'bridging'. Applied research projects about both AfL and CA have found that the application of these techniques creates learning advantages in the classroom and produces life-long benefits. The power of meta-cognition is without question. Over many years of rigorous evaluation, it has repeatedly been shown that cognitive acceleration, has large positive effects on students' cognitive growth, and subsequently on their academic achievement (Shayer 1999, Shayer 2000, Shayer & Adey 2002, Shayer & Adhami 2003). Such data highlights the need to pay close attention to meta-cognition, in addition to bridging and reflection in the AfL classroom. Students who indicate that they do not understand what they should do to reflect can be encouraged to be reflective for a moment. For example, they can be asked

to think about what they have learnt from how they felt about their learning in the previous semester. It is likely that they will begin to reflect and in doing so they will link, 'existing knowledge to an analysis of the relationship between current experience and future action' (McAlpine and Weston 2002, p.69). It is important to note that not only are meta-cognition, bridging and reflection highly beneficial to learning outcomes, students also enjoy classroom activities which require their use (AAG 2001 - 2005). The affective (feelings) and cognitive (intellectual thinking) spheres must be developed together; the former by the stimulation of reflective learning and the latter by activities that encourage meta-cognition and bridging in the classroom.

Assessment for Learning: A Culture of Cooperation

The practical in-service effect of AfL is that students keep learning and remain confident that they can continue to learn at productive levels if they keep trying to learn. In other words, students are much less likely to experience downward-spiralling motivation problems and disaffection which leads to poor achievement and discipline. McCroskey and Richmond (1992) remark that discipline problems –

‘...are merely symptomatic of the cause and achieving a productive and relatively stress-free learning environment involves more than controlling student misbehavior effectively. All aspects of what happens in the classroom are contingent upon eliciting cooperation from every class member,’ (p. 44).

Our classrooms are woefully lacking in a culture of cooperative interaction. However, research undertaken by the Assessment Action Group (AAG 2001 – 2005) in the U.K about AfL found that pupils responded positively to co-operating with different people (that is, adults and peers) in their assessment. Of particular interest in the AAG research was the confirmation that they liked to help other people with their schoolwork, either while actually working and learning, or in terms of assessment. It has been seen earlier in this article, that a key to better academic performance is socially constructed learning, a view supported by the field research of the AAG who found that the participants most appreciated those assessment techniques which were based on self and peer-assessment. It is therefore unsurprising that the central pillar in the AfL framework is effective dialogue among the central participants – the students. Furthermore, AfL necessarily entails cooperation between *all* the participants in the learning process and the AAG found that students appreciated the in-depth communication about AfL as a valuable part of the process of learning. Issues of poor discipline are merely symptomatic of the cause and achieving a productive and relatively stress-free learning environment involves more than controlling student misbehavior effectively. All aspects of what happens in the classroom are contingent upon eliciting cooperation from every class member by employing sound principles of classroom management. Disciplined learning behaviours may be more effectively embedded within the AfL classroom and beyond to the remaining years of their lives through the use of co-operative learning groups. Cooperative learning groups are characterized by positive interdependence, individual accountability, face-to-face promotive interaction, the appropriate use of interpersonal and small-group skills, and group processing. Cooperative learning groups

act as powerful catalysts for higher achievement, more positive relationships among students, and greater psychological health (Johnson & Johnson 1996, Fuchs *et al*, 1994, King 1990). Such groups may take various forms and can be used strategically to improve learning. ‘Think pair share’ groups encourage higher order thinking and require that students consider the question independently before discussing their ideas with a partner (AAG 2001-2005). The next phase of group work may then be a ‘think pair square’; this is the second and final stage in this example of cooperative group strategy and entails the sharing of ideas between pairs. Cooperative learning interventions create more confident and competent students. Such small group interaction has been clearly connected to specific academic enablers. These include intellectual enablers such as positive engagement in learning activities (Azmitia 1988, King 1990, Radziszewska & Rogoff 1991), improved problem-solving skills (Radziszewska & Rogoff 1991, Tudge *et al* 1996), and increases in recall and comprehension of material (Azmitia 1988, King 1990), as well as positive social communication and negotiation skills (Fuchs *et al* 1994, King 1990).

The Classroom Environment

To successfully create the circumstances in which AfL may thrive policy makers need to create circumstances in which practitioners may be trained in a number of key areas. Firstly, teachers should articulate in advance of teaching the achievement targets that their students are *realistically* expected to achieve. ‘Realistic’ in this context means that standards are high enough to motivate students to do their best work but not so high that students will become disaffected in trying to meet those expectations. To develop the drive to achieve, students need to believe that achievement is possible which means that early opportunities for success should be provided (American Psychological Association 1992, Bligh 1971, Forsyth and McMillan, 1991, Lowman 1984). In AfL students are informed of the learning goals in terms that they understand from the very beginning of the teaching and learning process. It is unrealistic to expect them to simply know how success may be achieved – as already noted unrealistic expectations cause fundamental motivational issues, and this particular ‘oversight’ causes them from the very outset. Independent learning can take place in conditions where the students know not only the purpose of each activity but also the assessment criteria, in advance. Confident and independent learning can be promoted by reassuring students that they can do well on the course, discussing the criteria and distributing prepared checklists which clearly illustrate what success looks like. Students are then more able to self and peer-assess and can remind themselves of the success criteria by simply referring to the checklists prepared to support their learning (AAG 2001- 2005). When they are clear about these, children achieve more, through paying attention to the key aspects required. The objective is to create an environment that is student lead rather than one which requires micro-management because the students exhibit an unwillingness to learn or claim forgetfulness of their learning activities. The AAG research found that students were more criteria aware and focused on success. In addition motivation and engagement improved as they felt that they were able to achieve the realistic targets. Teachers should create a productive and supportive learning environment both implicitly by using the checklists and explicitly by using appropriate discourse in the classroom (Cashin 1979, Tiberius

1990). Students can develop a deeper understanding of their learning when they are given opportunities to discuss the learning process with their teacher and their peers (AAG 2001-2005). Students' are greatly supported in this fundamental aspect of AfL by the reduction of teacher/student asymmetry in the classroom atmosphere. In a co-operative classroom it is important that the teacher consciously avoids messages that reinforce positional power or those that emphasize extrinsic rewards and sanctions. Instead of using questioning techniques which demand obedience, such as 'I require', 'you must', or 'you should', more open discourse such as 'I think you will find...' or 'I will be interested in your reaction to,' are more applicable (Johnson & Johnson 1996, Lowman 1990). More open-questioning techniques may be adopted that help students to explore the parameters of their own understanding. If such questions are put to a whole class group coupled with a no-hand up policy the increased scope afforded to the students requires that they are given a substantive amount of time to answer. A longer wait time than the usual 3-4 seconds before accepting responses encourage extended responses, and promotes deeper thinking and learning. It should be clear that AfL lessons are necessarily less prescriptive and consequently the students are active participants in the co-construction of the learning process. Students may be encouraged to engage with an activity by writing the issue on the board as a question and then using cooperative learning groups to discuss how the answer may be found (AAG 2001-2005). The teachers in the AAG programme who attempted a no-hand up policy reported mixed results, stating that its success depended on the students understanding that they would be asked a question at some point but not in every lesson. Questions were put to the whole class and then students chosen. In this way all the students were encouraged to take part in the lesson and it was made clear that all responses were valued, both correct and incorrect. Student involvement was further facilitated when the teacher asked them to vote for the correct answer from a variety of possible answers.

Self-Assessment

Classroom assessments should be devised, which build students' confidence in themselves as learners and help them take responsibility for their own learning, so as to lay a foundation for lifelong learning. Students can assess their own understanding of the subject matter in a variety of ways. Traffic-lighting is often used in AfL classrooms, and can be simplified to suit any situation. In one AAG partner school the teachers asked her class to annotate their work with ticks (can do easily), question marks (not sure), and crosses (cannot do). Other practitioners on the AAG research programme used diaries in which the students would self-assess their strengths and weaknesses. The use of this sub-system of AfL placed unique demands on the student and required that they learn how to use this idea effectively. Once the cohort understood how to 'work the machinery' for themselves it took 3-4 minutes for them to complete the entry. The teacher would then collect them and spend 10-15 minutes looking at their output while the students worked in small groups. Finally, the teacher circulated around a half or a third of the class discussing the issues raised in the diaries. This did slow the pace of learning however, the quieter pupils benefited and a significant feature of this initiative was a notable improvement in the quality of teacher-student interactions. A variation on this idea may be the collation of the diary issues to be dealt with the next day as a class group and then in

smaller work units. Difficulties understanding the subject matter may also be raised by using a post-box, in which students can anonymously request assistance. AAG research has reported that students in the AfL programme expressed clear ambitions to do well and hoped for general advice that would consolidate their objectives. In other words, students demonstrated a focus on their continued improvement across time and not just on their grade on any one test or assignment. Comments only marking replaced numerical grades as the method of written communication between teacher and student (AAG 2001-2005). The AAG research did report initial resistance to the concealment of grades, but once they understood that they would be revealed at some future time they accepted this aspect of the AfL system. It was also carefully explained that in order to comprehend why they are scoring at a certain level they should not be given their grades beforehand. Grades are temporarily withheld to encourage students to independently critique their own work and to honestly analyze their strengths, and work on their weaknesses (Cashin 1979, Forsyth and McMillan 1991). Self-assessment sheets may be distributed with an additional sheet detailing common mistakes. The students in who participated in the AAG/AfL programme reported their surprise to see how often they made the same mistakes. The use of such sheets empowers the students to analyse their own work, discover error patterns and communicate their feelings and thoughts to others about their own work and the work of others (AAG 2001-2005).

Teacher/Student Feedback

An important aspect of successful feedback is that of productive interaction with their teacher about their achievements and improvements. Substantial time should be spent at the beginning of the lesson on forward planning and at the end of lessons on reflection. We have already noted the profound benefits associated with meta-cognition; consequently a key feature of any AfL lesson is the thoughtfulness of the students when asked *how* they learn. A class of 13 year old French language learners were asked how they learn new vocabulary and provided answers such as word association, family testing, testing their friends using SMS text messaging or email and so on (AAG 2001-2005). AfL is effective in improving the students capacity to self and peer assess across the board. For example in activities which encompass the performance of research and delivering multi-media presentations: students were asked to initially ask to prepare and deliver a group presentation, but this was only the beginning of the learning process. They were also asked to assess the quality of their own presentation; report on their assessment of their presentation to the class; and receive the assessments of the other groups in the class regarding their presentation. The process was completed by a teacher directed general discussion on the issues arising from the group and class feedback (AAG 2001 – 2005). Managing feedback appropriately is a fundamental determiner of the classroom atmosphere. Both positive and negative comments influence motivation, but research consistently indicates that students are more affected by positive feedback and success. Praise builds students' self-confidence, competence, and self-esteem. Positive recognition of sincere efforts by students, even if those efforts are of only moderate quality is a highly desirable facet of good quality teaching in practice (Cashin 1979, Lucas 1990). One relatively obvious proposition concerning feedback is that it should be remembered that negative feedback is very powerful and can lead to a negative class

atmosphere. Whenever identifying a student's weakness, make it clear that comments relate to a particular activity, not to the student as a person. Comments with a negative tone are an inevitability in some circumstances and so the teacher should make a conscious attempt to cushion the blow with a compliment about aspects of the task in which the student succeeded (Cashin 1979). The general rule regarding feedback in an AfL intervention is that frequent descriptive feedback (as opposed to judgmental feedback) should be given so the students are given specific insights as to how to improve. Activity sheets should be returned promptly, and public acknowledgements of quality contributions should be dispensed immediately. AfL students are given a clear indication of how well they have done, what steps to take to improve further and receive reassurance that their performances will improve over time. In addition to constructive and descriptive teacher/student feedback the students should be engaged in regular self and peer-feedback activities. The standards and format of these assessments should be held constant so that the participants can easily watch themselves grow over time and thus feel in charge of and responsible for their own success. It is essential to monitor and continuously adjust instruction based on the feedback data taken from these assessments. This fundamental issue of informing-planning also incorporates the notion of varying the instructional methods employed in the classroom. Variety reawakens students' involvement in the course and their motivation. Young learners, while on the one hand requiring some structure and routine, also respond very well to the incorporation of a variety of teaching activities and methods - role playing, debates, brainstorming, discussion, demonstrations, case studies, audiovisual presentations, guest speakers, or small group work are challenging instructional methods and provide excellent opportunities for AfL activities (Forsyth and McMillan 1991).

Closing Summary

In *Assessment for Learning: Beyond the Black Box* (ARG 1999) - a statement of detailed recommendations based on the earlier research of Black and Wiliam - various undesirable tendencies exhibited by classroom practitioners were identified. These may be summarized in closing as: a) a tendency for teachers to assess quantity of work and presentation rather than the quality of learning; b) a focus on marking and grading at the expense of providing advice for improvement, which tends to lower the self esteem of pupils; c) a strong emphasis on comparing pupils with each other which demoralizes the less successful learners; d) teachers' feedback to pupils often attempts to serve managerial and social purposes rather than helping them to learn more effectively. The ARG propose that improving learning through assessment depends on five key factors: i) a recognition of the profound influence instruction and specifically assessment has on the motivation and self esteem of pupils; ii) adjusting teaching to take account of the results of assessment; iv) the provision of effective feedback to pupils; iii) the active involvement of pupils in their own learning; v) the need for pupils to be able to assess themselves and understand how to improve. Particular emphasis was placed upon the sharing of learning goals with pupils, involving pupils in self assessment, providing feedback which leads to pupils recognizing their next steps and how to take them. All these aspects mesh against a background which nurtures the confidence that every student can improve across time. AfL exists in only some of our classrooms, but where it does

take place the benefits extend beyond the classroom, into our communities and far into the future for many of those young learners who participate in this system of learning. Unfortunately, the students of AfL who exhibit the least aptitude are those we have referred to throughout the article as ‘policy makers’ (Neill 1997). It is clear that it is they who have much to learn before the recommendations of the ARG are recognized as essential policy requirements.

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